

WHAT IS CLAIMED IS:

1. A method for treating an intravascular occlusion, comprising the step of delivering fluid containing an occlusion-treating drug such that at least a portion of the drug contacts an intravascular occlusive device.

2. The method of Claim 1, wherein said occlusive device is a balloon.

3. The method of Claim 1, wherein said drug is a thrombolytic agent.

4. The method of Claim 1, wherein said drug is an anticoagulant.

5. The method of Claim 1, wherein said drug is a radioisotope.

6. The method of Claim 1, wherein said drug is delivered at a flow rate of between about 0.1 and 10 cc/second.

7. The method of Claim 6, wherein said drug is delivered at a flow rate of between about 0.5 and 2 cc/second.

8. The method of Claim 7, wherein said drug is delivered at a flow rate of between about 0.5 and 1 cc/second.

9. A method for treating an intravascular occlusion, comprising:  
delivering an occlusive device into a blood vessel to a site near said occlusion;  
delivering a catheter having a proximal end and distal end to the site of said occlusion such that the distal end of said catheter is proximal to the occlusive device;  
actuating said occlusive device at a location distal to said occlusion to at least partially occlude blood flow through said vessel; and

delivering a drug-containing fluid from the distal end of said catheter such that at least a portion of the drug-containing fluid contacts said occlusive device.

10. The method of Claim 9, whereby said drug travels in a distal to proximal direction after contacting said occlusive device.

11. The method of Claim 9, wherein said occlusive device is a balloon.

12. The method of Claim 9, wherein said drug is a thrombolytic agent.

13. The method of Claim 9, wherein said drug is an anticoagulant.

14. The method of Claim 9, wherein said drug is a radioisotope.

15. The method of Claim 9, wherein said drug is delivered at a flow rate of between about 0.1 and 10 cc/second.

16. The method of Claim 15, wherein said drug is delivered at a flow rate of between about 0.5 and 2 cc/second.

17. The method of Claim 16, wherein said drug is delivered at a flow rate of between about 0.5 and 1 cc/second

18. The method of Claim 9, wherein said catheter is an aspiration catheter.

19. The method of Claim 18, further comprising aspirating particles broken off from the occlusion during delivery of the guidewire past the occlusion through said aspiration catheter.

20. The method of Claim 9, wherein the tip of said catheter is placed between about 0.5 and 10 mm from the surface of said occlusive device.

21. The method of Claim 20, wherein the tip of said catheter is placed between about 1 and 5 mm from the surface of said occlusive device.

22. The method of Claim 9, further comprising aspirating particles broken off from said occlusion through said catheter after delivering the drug-containing fluid.

23. The method of Claim 9, wherein the occlusive device is provided on a distal end of a guidewire.

24. The method of Claim 23, wherein the catheter is delivered over the guidewire.

25. The method of Claim 23, wherein the catheter is delivered before delivering the guidewire.

26. A method of treating an intravascular occlusion in a blood vessel, comprising:  
delivering a guidewire having an occlusive device to the site of the occlusion such that the occlusive device is distal to the occlusion;

delivering a catheter having a proximal end and a distal end and a lumen extending therethrough to the site of the occlusion such that the distal end of the catheter is proximal to the occlusive device;

actuating the occlusive device to at least partially obstruct blood flow through the blood vessel;

delivering a treatment fluid through the lumen of the catheter such that the fluid flows in a proximal to distal direction out of the distal end of the catheter, and then flows in a distal to proximal direction after contacting the occlusive device; and

aspirating particles generated by the action of the treatment fluid on the occlusion through the lumen of the catheter at the distal end.

27. The method of Claim 26, further comprising the steps of removing said catheter, performing further treatment and aspirating particles generated by the further treatment.

28. The method of Claim 26, further comprising the step of aspirating while crossing the occlusion with the guidewire.

29. The method of Claim 26, wherein a guidewire lacking an occlusive device is delivered to create space, then exchanged for the guidewire having an occlusive device.

30. The method of Claim 26, wherein said guidewire has holes at its proximal end.

31. The method of Claim 26, wherein said occlusive device is a balloon.

32. The method of Claim 26, wherein said catheter rides over said guidewire.

33. The method of Claim 26, wherein said catheter and said guidewire are delivered simultaneously.

34. The method of Claim 26, wherein said guidewire is delivered first.

35. The method of Claim 26, wherein said catheter is delivered first.

36. A method for crossing an intravascular occlusion in a blood vessel, the method comprising:

delivering a hollow wire in a proximal to distal direction past the occlusion;  
and

delivering fluids through a lumen in said hollow wire to dissolve said occlusion while crossing of the occlusion with the hollow wire.

37. The method of Claim 36, wherein the fluids are delivered through side ports in the hollow wire.

38. The method of Claim 36, wherein the fluids are delivered through an irrigation hole at the distal end of the hollow wire.

39. The method of Claim 36, wherein the hollow wire includes an occlusive device at its distal end.

40. The method of Claim 36, wherein the occlusive device is an inflatable balloon.

41. The method of Claim 36, wherein the inflatable balloon is inflated through the lumen using said fluids.

42. A method for treating an intravascular occlusion, comprising:

delivering a catheter having a proximal end and a distal end and a lumen extending therethrough into a blood vessel to a site near said occlusion, the catheter having an occlusive device on the distal end;

actuating said occlusive device at a location distal to said occlusion to at least partially occlude blood flow through said vessel; and

delivering a drug-containing fluid injected through the lumen of said catheter across said occlusion in a distal to proximal direction.

43. The method of Claim 42, wherein the drug-containing fluid is delivered through a plurality of holes in the catheter proximal to the occlusive device.

44. The method of Claim 42, wherein the occlusive device is a balloon.

45. The method of Claim 44, wherein the drug-containing fluid is delivered through a plurality of holes in a proximal face of the balloon.

46. The method of Claim 45, wherein the drug-containing fluid delivered through the lumen is used to inflate the balloon.

47. The method of Claim 42, wherein the drug-containing fluid is delivered at a flow rate of between about 0.1 to 3 cc/second.